
Preliminary Science Flight Report

Operation IceBridge Antarctica 2011



Flight: GV-FL13

Mission: LVIS-Calibration2

Flight Report Summary

Aircraft	NSF G-V (N677F)
Flight Number	13
Flight Request	118003
Date	Saturday October 29 th , 2011, DOY 302
Purpose of Flight	Operation IceBridge Mission, LVIS Calibration2 Flight
Take off time	12:47 UTC from Punta Arenas (SCCI)
Landing time	14:00 UTC at Punta Arenas (SCCI) on October 29, 2011
Flight Hours	1.2
Aircraft Status	Airworthy.
Sensor Status	All installed sensors operational.
Significant Issues	None
Accomplishments	<ul style="list-style-type: none">• Camera and LVIS altimeter calibration flight (~10,000 ft)• Two orthogonal airport surveys for altimeter crossovers and camera calibration.• Two roll and pitch maneuver passes over water.
Geographic Keywords	Calibration, crossovers, roll and pitch maneuvers.
ICESat/CryoSat Track	None
Repeat Mission	Overlap with previous IceBridge airport survey data.

Science Data Report Summary

Instrument	Instrument Operational			Data Volume	Instrument Issues
	Survey Area	Entire Flight	High-alt. Transit		
LVIS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10 GB	None
POS/AV (510 + 610)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1 GB	None
LVIScameras(2)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5 GB	None
G-V Onboard Data	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1 MB	None

Mission Report (Michelle Hofton, Mission Scientist; Bryan Blair, Instrument Operator; Scott Luthcke, OIB Science Team; LVIS team members: Blue Cornejo, Matt Beckley)

The 13th LVIS NSF G-V flight was flown for the purpose of calibrating the cameras and LVIS. Data were collected from orthogonal passes over the airport, and roll and pitch calibration maneuvers over water. Weather was clear and data was collected over all of the calibration target areas.

Individual instrument reports from experimenters on board the aircraft:

LVIS: The LVIS system worked well.

POS/AV: Systems worked well. No issues.

LVIScam: System worked well. No issues.

G-V on board data: System worked well.

Clear skies over Punta Arenas allowed us to get in a critical calibration flight for the cameras and LVIS.



Flight Hours Summary

Flight	Date	Aircraft Flight #	Data Flight#	Duration (hr)	Running Total(hr)	Remaining Science Hours*
						100.00
PUQ-PUQ	10/07/11	RF01	GV-FL01	10.7	10.7	89.3
PUQ-PUQ	10/08/11	RF02	GV-FL02	10.4	21.1	78.9
PUQ-PUQ	10/10/11	RF03	GV-FL03	10.7	31.8	68.4
PUQ-PUQ	10/12/11	RF04	GV-FL04	10.3	42.1	58.4
PUQ-PMC	10/13/11	FF01	-	1.9		
PMC-PUQ	10/14/11	FF02	-	2.1		
PUQ-PUQ	10/14/11	RF05	GV-FL05	1.4	47.5	52.5
PUQ-PUQ	10/15/11	RF06	GV-FL06	10.5	58.0	42.0
PUQ-PUQ	10/17/11	RF07	GV-FL07	10.9	68.9	31.1
PUQ-PUQ	10/19/11	RF08	GV-FL08	10.5	79.4	20.6
PUQ-PMC	10/20/11	FF03	-	1.9		
PMC-PUQ	10/21/11	FF04	-	2.1		16.6
						+50
PUQ-PUQ	10/22/11	RF09	GV-FL09	10.4	93.8	55.2
PUQ-PUQ	10/23/11	RF10	GV-FL10	10.9	104.7	44.3
PUQ-PUQ	10/26/11	RF11	GV-FL11	10.7	115.4	33.6
PUQ-PUQ	10/27/11	RF12	GV-FL12	10.2	125.6	23.4
PUQ-PUQ	10/29/11	RF13	GV-FL13	1.2	126.8	22.2

* 50 additional mission flight hours added (10/21/11)